A disadvantage of the process as described above is that it has been found difficult to prepare the high viscosity product at all or in a sufficient quantity.

The object of the present invention is to provide a process, which can prepare at least a light and a heavy base oil.

The following process achieves this object. Process to prepare a heavy (13) and a light lubricating base oil (17) from a party isomerised Fischer-Tropsch derived feedstock (1), said feedstock having an initial boiling point of below 400 °C and a final boiling point of above 600 °C by

(a) separating, by means of distillation (2), said fraction into a light base oil precursor fraction (4) and a heavy base oil precursor fraction (5),

(b) reducing the pour point of each separate base oil precursor fraction by means of dewaxing,

(c) and isolating the desired base oil products (13, 17) from said dewaxed oil fractions (9, 10) as obtained in step (b).

Applicants have found that with the process according to the invention highly saturated base oils containing almost no sulphur and having a high viscosity index can be prepared. Furthermore different base oil grades may be prepared using this process, ranging from the low viscosity grades to the high viscosity grades.
For example a base oil product slate, wherein the different products have kinematic viscosities at 100 °C of about 2, 5, 8.5 and 20 cSt respectively may be prepared in a high yield. A further advantage of dewaxing the light and heavy base oil precursor fractions separately is that the pour points of the resulting light and heavy base oils can be targeted to their most optimal

C L A I M S

1. Process to prepare a heavy and a light lubricating base oil from a partly isomerised Fischer-Tropsch derived feedstock (1), said feedstock having an initial boiling point of below 400 °C and a final boiling point of above 600 °C by

(a) separating, by means of distillation , said fraction into a light base oil precursor fraction and a heavy base oil precursor fraction,

(b) reducing the pour point of each separate base oil precursor fraction by means of dewaxing,

(c) and isolating the desired base oil products from said dewaxed oil fractions as obtained in step (b).

2. Process according to claim 1, wherein the effective cut temperature in step (a) at which the light and heavy (5) base oil precursor fractions are separated is between 470 and 600 °C.

3. Process according to any one of claims 1-2, wherein the fraction boiling above 540 °C in the feed to step (a) is at least 20 wt%.

4. Process according to claim 3, wherein the fraction boiling above 540 °C in the feed to step (a) is at least 30 wt%.

5. Process according to any one of claims 1-4, wherein the heavy base oil as obtained in step (c) has a kinematic viscosity at 100 °C of above 15 cSt, preferably above 17 cSt and more preferably above 20 cSt.

6. Process according to claim 5, wherein a base oil having a kinematic viscosity at 100 °C of between 7 and 15 cSt is isolated from the dewaxed light base oil precursor fraction.

7. Process according to any one of claims 1-6, wherein the light base oil as obtained in step (c) has a kinematic viscosity at 100 °C of between 3.8 and 6 cSt.

8. Process according to any one of claims 1-7, wherein the dewaxing of the heavy and light base oil precursor fraction is performed simultaneously in two different reactors.

9. Process according to any one of claims 1-8, wherein the dewaxing step is performed by means of a catalytic dewaxing process in the presence of a catalyst comprising a medium pore size molecular sieve and a Group VIII metal.

10. Process according to claim 9, wherein the molecular sieve is a MTW, MTT or TON type molecular sieve.

11. Process according to any one of claims 9 or 10, wherein the Group VIII metal is platinum or palladium.

12. Process according to any one of claims 9-11, wherein the catalyst used in the catalytic dewaxing of the heavy base oil precursor fraction comprises a MTW molecular sieve, platinum or palladium as Group VIII metal and a silica binder.

13. Process according to claim 12, wherein the catalytic dewaxing of both light and heavy base oil precursor fractions are performed in the presence of a catalyst comprising a MTW molecular sieve, platinum or palladium as Group VIII metal and a silica binder.

14. Process according to any one of claims 1-8, wherein the heavy base oil precursor fraction is reduced in pour point by first performing a pour point reducing step in the presence of a catalyst comprising a 12-member ring zeolite and secondly performing a catalytic dewaxing on the effluent of the first step in the presence of a 10-member ring zeolite.

15. Process according to claim 14, wherein the pour point after the first dewaxing step is between -10 and +10 °C.

16. Use of the heavy grade base oil as obtainable according to the process of any one of claims 1-15 to formulate a motor oil formulation, which does not require a viscosity modifier.